



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/045,415	10/19/2001	Michael T. Larsen	6636	9959

22922 7590 08/15/2002

REINHART BOERNER VAN DEUREN S.C.
ATTN: LINDA GABRIEL, DOCKET COORDINATOR
1000 NORTH WATER STREET
SUITE 2100
MILWAUKEE, WI 53202

EXAMINER

LAWRENCE JR, FRANK M

ART UNIT	PAPER NUMBER
----------	--------------

1724

6

DATE MAILED: 08/15/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

10/045,415

Applicant(s)

LARSEN ET AL.

Examiner

Frank M. Lawrence

Art Unit

1724

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☐ Responsive to communication(s) filed on ____.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-20 is/are pending in the application.
- 4a) Of the above claim(s) ____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) ____ is/are allowed.
- 6) ☒ Claim(s) 1-20 is/are rejected.
- 7) ☐ Claim(s) ____ is/are objected to.
- 8) ☐ Claim(s) ____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 19 October 2001 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on ____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. ____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s). ____
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 4. 6) ☐ Other: _____

DETAILED ACTION

Drawings

1. The drawings are objected to because the reference to "12" in figure 12 should be changed to "15" because it denotes a section shown in figure 15. Also, in figure 3, "144" should be changed to "140" to remain consistent with the specification and other drawings. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.
2. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description: 100 (figure 12). A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. The reference number may be deleted from figure 12 to overcome the objection.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.
4. Claim 20 is rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.
5. Claim 20 recites the limitation "said collection chamber" in line 9 of the claim. There is insufficient antecedent basis for this limitation in the claim. The first reference to the collection chamber may be deleted to overcome this rejection.

Claim Rejections - 35 USC § 102

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(a) the invention was known or used by others in this country, or patented or described in a printed publication in this or a foreign country, before the invention thereof by the applicant for a patent.

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

7. Claims 1-3, 10, 11, 13 and 16 are rejected under 35 U.S.C. 102(a) as being anticipated by the German reference (DE 10014829 A1; see paragraph 0046; figure 2).

8. DE '829 teaches a water trap for connection to a breath monitoring device, comprising a closed container (10) having an inlet port (220), outlet port (330), and negative pressure-connected port (280), a water collection chamber (60), a liquid trap filter chamber (20) integral with the container, an inlet compartment within the chamber (20) between the inlet port and outlet port, an upper outlet in the compartment connected to the outlet port (330), a lower outlet (270) connected to the collection chamber (60), an outlet compartment formed by a conduit in communication between the collection chamber and negative pressure port, and a liquid trap filter membrane (260) in the compartment located between the inlet and outlet ports for separating liquid from incoming gas and directing the liquid to the collection chamber via the lower outlet (270), wherein the upper outlet defines a barrier between the filter and outlet port, and the filter chamber (20) forms a cover that encloses the filter element within the inlet compartment and separates the inlet and outlet compartments.

9. Claims 1-4, 6, 7, 10-13, 16, 17, 19 and 20 are rejected under 35 U.S.C. 102(b) as being anticipated by Aaltonen et al. (4,886,528; abstract; figures; col. 1, lines 5-12; col. 3, lines 15-55).

10. Aaltonen et al. ('528) teach a water separator for a gas analyzer, comprising a closed container having an inlet port (12), outlet port (10), and suction pump-connected port (11), a water collection chamber (15), a liquid trap filter chamber (4) integral with the container, an inlet compartment (17) within the chamber between the inlet port and outlet port, an upper outlet in the compartment connected to the outlet port (10), a lower outlet (13) connected to the collection chamber (15), an outlet compartment (18) in communication between the collection chamber and suction port (11) having an upper outlet and lower inlet (14), a porous, water-impermeable filter membrane (3) in the inlet compartment located between the inlet and outlet ports for separating liquid from incoming gas and directing the liquid to the collection chamber via the lower outlet (13), a second porous, water-impermeable filter membrane in the outlet compartment (18) between its inlet and outlet, and a cover (1) that encloses the filter element within the inlet compartment and has a concave (hollowed) inner surface that engages the filter element between the cover and outlet barrier, wherein the upper outlets define outlet barriers between the filters and outlet ports, and the cover separates the inlet and outlet compartments.

Claim Rejections - 35 USC § 103

11. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

12. Claims 5, 8, 14 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Aaltonen et al. ('528) in view of Kashmer et al. (4,465,485; col. 7, lines 8-63).

13. Aaltonen et al. ('528) disclose all of the limitations of the claims except that the filter elements are membranes bearing a PTFE laminate. Kashmer et al. ('485) disclose a fluid-conducting suction container having a PTFE laminated filter element for passing gases while preventing aerosol or droplets from passing through. It would have been obvious to one having ordinary skill in the art at the time of the invention to use a PTFE laminated filter element for separating moisture from gas in the Aaltonen et al. ('528) device in order to provide a material having an appropriate porosity that passes gas while being impermeable to liquids and having sufficient strength to resist pressure.
14. Claims 9 and 15 are rejected under 35 U.S.C. 103(a) as being unpatentable over either one of Aaltonen et al. ('528) or DE '829 in view of Larsen et al. (4,924,860; abstract; col. 3, lines 9-28).
15. Either one of Aaltonen et al. ('528) or DE '829 discloses all of the limitations of the claims except that either one of the outlet or low-pressure ports contains a self-sealing filter. Larsen et al. ('860) disclose a water trap for a gas analyzer including self-sealing filters in the outlet and vacuum ports of the water trap. It would have been obvious to one having ordinary skill in the art at the time of the invention to modify the trap of either one of Aaltonen et al. ('528) or DE '829 by including self-sealing filters in the outlet or low-pressure ports in order to provide a means to automatically protect the connected gas analyzer from liquid contamination by preventing the passage of liquid to the analyzer.

Conclusion

16. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. The additional references listed on the attached PTO-892 form disclose exhaled gas

Art Unit: 1724

separators for analyzers. Some of the references may be anticipatory of certain of the instant claims.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Frank M. Lawrence whose telephone number is 703-305-0585. The examiner can normally be reached on Mon-Thurs 7:30-5:00; alternate Fridays 7:00-4:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, David A. Simmons can be reached on 703-308-1972. The fax phone numbers for the organization where this application or proceeding is assigned are 703-872-9310 for regular communications and 703-872-9311 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-308-0651.

Frank Lawrence

Frank Lawrence 8-1302
Patent Examiner

fl

August 13, 2002